Amendment under 37 C.F.R. § 1.116
U.S. Application No. 09/544,544

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

## LISTING OF CLAIMS:

1. (previously presented): A node-search method in a network, comprising the steps of:

a host of a first domain, acquiring a packet which includes routing information of a

network configured with a plurality of domains including the first domain connected to at least

one interworking unit;

the host, sending a broadcast packet, for requesting a response from a node which

provides a specific service, to at least any one of said plurality of domains other than the first

domain which is listed in said acquired routing information; and

receiving a response packet for said broadcast packet and detecting the node which sent

the response packet.


2. (currently amended): A node-search method in a network, comprising the steps of:

sending a packet, for requesting routing information from the network which is connected

to an interworking unit, from a host to the interworking unit, ~~which~~where the interworking unit is

capable of storing routing information set in advance;

receiving, in said host, a packet containing said routing information;

sending a broadcast packet, for requesting a response from a node that provides a specific

service, from said host to a domain which is listed in said received routing information; and

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receiving, in said host, a response packet in response to said broadcast packet, and

detecting the node which sent the response packet.


3. (canceled)


4. (original): A node-search method in a network, comprising the steps of:

receiving a RIP (Routing Information Protocol) packet;

acquiring information indicating a network number and an address of a router of each

domain in the network from said received RIP packet; and

broadcasting, based on said acquired information, into a specific network so as to search

for a node, using a specific port number.


5. (currently amended): A node-search device for searching for a node in a network,

comprising:

network interface means for connecting with the network, where the network is

configured with a plurality of domains including a first domain;

means of said first domain, for acquiring domain information from a packet containing

routing information which was acquired by said network interface means;

means for finding broadcast addresses for said domains;

means for generating a request packet to be sent to said found broadcast addresses for

findingrequesting a response from a node which provides a specific service, and sending the

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packet to ~~the network through said network interface means~~at least one of said plurality of

domains other than said first domain which is listed in said acquired routing information; and

means of extracting information indicating nodes which perform said specific service,

which is contained in a response packet to said request packet.

6. (previously presented): A node-search device of a first domain for searching for a

node in a network, comprising:

means for sending a packet, for requesting routing information for a network configured

with a plurality of domains including the first domain connected to at least one interworking unit,

to the at least one interworking unit, which is capable of storing preset routing information;

means for receiving a packet containing said routing information and acquiring

information indicating a node contained in said routing information;

means for sending a request packet, for requesting a response from a node which

provides a specific service, which is broadcasted to at least any one of said plurality of domains

other than the first domain connected through the interworking unit, to the interworking unit; and

means for receiving a response packet for said request packet and detecting the node

which sent the response packet.

7. (previously presented): A computer-readable storage medium in which a program

which is executed by a computer of a first domain for searching for a node in a network is

recorded, wherein:

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said program makes the computer of the first domain execute:

a process of acquiring a packet containing routing information, from at least one

interworking unit of a network configured with a plurality of domains including the first domain;

a process of sending a broadcast packet, for requesting a response from a node which

provides a specific service, to at least any one of said plurality of domains other than the first

domain which is listed in said acquired routing information, and

a process of receiving a response packet for said broadcast packet and detecting the node

which sent the response packet.


8. (previously presented): A computer-readable storage medium in which a program

which is executed by a computer of a first domain for searching for a node in a network is

recorded, wherein:

said program makes the computer of the first domain execute:

a process of sending a packet, for requesting routing information from at least one

interworking unit of a network configured with a plurality of domains including the first domain,

to the at least one interworking unit, which is capable of storing preset routing information set in

advance;

a process of receiving a packet containing said routing information;

a process of sending a broadcast packet for requesting a response from a node which

provides a specific service, to at least any one of said plurality of domains other than the first

domain which is listed in said routing information; and

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a process of receiving a packet in response to said broadcast packet, and detecting the

node which sent the response packet.

9. (original) A storage medium in which a program is stored, according to Claim 8,

wherein:

said interworking unit is a router.

Claims 10-12 (canceled)

13. (original): A computer-readable storage medium in which a program which is

executed by a computer for searching for a service providing node in a network configured with

a plurality of domains is recorded, wherein:

said program makes the computer execute:

a process of receiving a RIP (Routing Information Protocol) packet;

a process of acquiring information indicating a network number and mail address of each

domain in the network from said received RIP packet; and

a process of broadcasting, based on said acquired information, into a specific network so

as to search for a node, using a specific port number.

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14. (previously presented): A computer-readable storage medium in which a program

which is executed by a computer of a first domain for searching for a service providing node in a

network configured with a plurality of domains, wherein:

said program makes the computer execute:

a process of receiving an SNMP (Simple Network Management Protocol) packet from at

least one router of a network configured with a plurality of domains including the first domain;

a process of acquiring information indicating a network number and an address of a

router of each domain of said plurality of domains including the first domain in the network from

the received SNMP packet;

a process of broadcasting into at least any one of said plurality of domains other than the

first domain, based on said acquired information so as to search for a node, using a specific port

number.

15. (previously presented) The node-search method of claim 1, wherein a plurality of

interworking units exist in the network, wherein at least one of said plurality of interworking

units is a bridge, a brouter, or a router.

16. (previously presented) The node-search method of claim 15, the node-search method

further comprising:

first sending the broadcast packet to at least one of said plurality of domains with the

fewest hop counts.

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17. (previously presented) The node-search method of claim 15, the node-search method

further comprising:

first sending the broadcast packet to at least one of said plurality of domains with a hop

count less than a specified number.

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